

REMARKS

Claims 1, 2, 6 and 7 have been amended. New claims 9-16 have been added. Reexamination and reconsideration are respectfully requested.

Applicants' counsel wishes to thank Examiner Leslie for the courtesies extended during the personal interview on July 5, 2006. The following records the substance of the interview.

Initially, Applicants gratefully acknowledge the indicated allowability of claims 4, 5 and 8. These claims have been rewritten into independent form as newly added claims 11, 12 and 13, respectively. Additionally, Applicants have added dependent claims 14 and 15 that correspond to original claims 6 and 7 but are dependent from any one of claims 11-13. As such, Applicants submit claims 11-15 are all in condition for allowance as indicated in the Office Action.

In that regard, Applicants have amended claims 1, 2 and 6-7 to structurally recite that the hydraulic drive unit is provided with a communication control system as discussed during the interview. The newly added claims 9-16 also recite the communication control system. Applicants thus submit the recitation is definite.

Regarding the objections to the specification, drawings and claims, Applicants have amended claims 6 and 7 to moot the objections. Applicants point out, however, that the multiple dependent recitation language used for claims 6 and 7 is specifically authorized in the MPEP. Applicants also submit a revised abstract herewith and replacement drawing sheets labeling Figures 4, 6, 7 and 8 as prior art.

In the Office Action, independent claim 1 and dependent claims 2 and 3 were rejected as being anticipated by CASEY et al. (US 5,797,310). As discussed during the interview, Applicants respectfully traverse this rejection in view of the following remarks.

As discussed during the interview, Applicants' invention provides a hydraulic drive unit that includes a communication control system which brings a rod chamber of a first hydraulic cylinder and a bottom chamber of a second hydraulic cylinder into communication with each other when a pressure in the rod chamber of the first hydraulic cylinder has risen to a high pressure of at least a predetermined pressure.

In contrast, the CASEY reference is directed toward a self-leveling system characterized in that the position of a bucket, which varies as a boom raised or lowered, is automatically maintained level.

In CASEY et al., pressurized fluid discharged from the boom cylinder as a result of an operation of the boom is always guided to the bucket cylinder since the orientation of the bucket has to be maintained always level irrespective of whether the boom is raised or lowered. As such, CASEY fails to teach or suggest a communication control which brings the rod chamber of the first hydraulic cylinder and the bottom chamber of the second hydraulic cylinder into communication with each other when a pressure in the rod chamber has risen to a high pressure of at least a predetermined pressure. As discussed during the interview, CASEY does not "bring" the chambers into communication upon the occurrence of an event as in Applicants' invention, but rather CASEY's boom

cylinder is always guided, and thus in communication, with the bucket cylinder. This is because the bucket must be maintained level at all times, irrespective of whether the boom is raised or lowered.

To extend the boom cylinder (17) in CASEY, for example, the pressurized fluid delivered from the pump (21) flows through the left position (port) of the directional control valve (23) which controls the boom cylinder (17), enters the port (B) of the self leveling valve assembly (27), flows through the bore (51) and the load check valve (53), flows out of port (A), and then enters the head end of the boom cylinder (17). As a result, the boom cylinder (17) extends. The pressurized fluid discharged from the rod end of the boom cylinder (17) as a result of the extension of the boom cylinder (17) enters through the port C of the self leveling valve assembly (27), and a portion of the fluid flows past the flow divider valve spool (41), through the passage (77) and the port (D), and then returns to the reservoir (R). On the other hand, the rest of the fluid, which has been split by the flow divider valve spool (41), flows through the passage (81), flows past the load check valve (45), to the port (E), and from there to the head end of the bucket cylinder (19). As a result, the bucket cylinder (19) extends.

Accordingly, the bucket (15) which is tilted upward as the boom arm (13) is raised is tilted downward to maintain the level position. It is to be noted that the pressurized fluid, which is discharged from the rod end as a result of an extension of the bucket cylinder (19), enters through the port (F), flows past the underloading spool (47), combines into the passage (77), exits through the port (D), and then returns to the reservoir (R). A flow to be split to maintain the

bucket in a level position is determined by the adjustable orifice member (37). See CASEY et al., col. 4, lines 21-29).

For the foregoing reasons, Applicants submit claim 1 is patentable over CASEY.

In addition, as discussed during the interview, Applicants have added a new independent claim 16 substantially corresponding to claim 1 but further reciting that pressure oil from the rod chamber of the first hydraulic circuit is combined with pressure oil, delivered from the main hydraulic pump and fed to the bottom chamber of the second hydraulic cylinder via the second directional control valve. As shown in the exemplary embodiment of Figure 1, pressure oil in rod chamber 6b is brought into communication and combined with pressure oil from main hydraulic pump 21 fed to the bottom chamber 7a via the directional control valve 24. Support for this amendment is provided, for example, from page 23, line 20 through page 24, line 10. Clearly, CASEY fails to teach or suggest this particular communication.

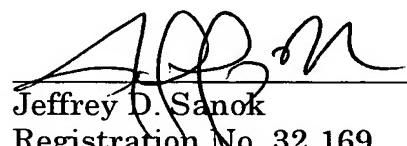
In view of the above, Applicants submit claim 1 is patentable over CASEY. Further claims 2-8 depend therefrom and are also submitted to be patentable. Additionally, as noted above, claims 11-16 are allowable as set forth in the Office Action.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #080306.55701US).

Respectfully submitted,

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Jeffrey D. Sanok
Registration No. 32,169

CROWELL & MORING LLP
Intellectual Property Group
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844
JDS:pct